



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-0673; Directorate Identifier 2014-SW-034-AD;**

**Amendment 39-18244; AD 2015-17-11]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters. This AD requires inspecting the swashplate assembly rotating star to determine whether a ferrule was installed. If a ferrule exists, this AD requires inspecting the rotating star for a crack and removing any cracked rotating star. This AD was prompted by a report that reconditioning the rotating swashplate per a certain repair procedure could result in the rotating star cracking. The actions of this AD are intended to detect a crack in the rotating star and prevent failure of the rotating star and subsequent loss of control of the helicopter.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Airbus Helicopters, Inc., 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, Texas 76177.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 10101 Hillwood Pkwy., Fort Worth, Texas 76177; telephone (817) 222-5110; email: [robert.grant@faa.gov](mailto:robert.grant@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On March 27, 2015, at 80 FR 16325, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters with a swashplate assembly with rotating star, part number (P/N) 350A371003-04, 350A371003-05, 350A371003-06, 350A371003-07, or 350A371003-08. The NPRM proposed to require inspecting the swashplate assembly rotating star to determine whether a ferrule was installed. If a ferrule exists, this proposed AD would require inspecting the rotating star for a crack and removing any cracked rotating star. The proposed requirements were intended to detect a crack in the rotating star and prevent failure of the rotating star and subsequent loss of control of the helicopter.

The NPRM was prompted by AD No. 2014-0132R1, dated June 2, 2014, issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA AD No. 2014-0132R1 corrects an unsafe condition for Airbus Helicopters (previously Eurocopter France) Model AS 350 B, BA, BB, B1, B2, B3, D, AS 355 E, F, F1, F2, N, NP, EC 130 B4, and T2 helicopters if equipped with a swashplate assembly with a rotating star, P/N 350A371003-04, P/N 350A371003-05, P/N 350A371003-06, P/N 350A371003-07, or P/N 350A371003-08. EASA advises that during a repair of a helicopter, it was discovered that rotating swashplates reconditioned in accordance with a certain repair procedure could experience a high stress level. This condition, if not

corrected, could affect the service life of the part. To address this unsafe condition, EASA AD No. 2014-0132R1 requires repetitive inspections and replacement of the rotating star.

### **Comments**

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (80 FR 16325, March 27, 2015).

### **FAA's Determination**

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Differences Between this AD and the EASA AD**

The EASA AD requires reporting inspection findings to Airbus Helicopters. This AD makes no such requirement. The EASA AD does not apply to Airbus Helicopters Model AS350C and AS350D1 helicopters, whereas this AD applies to those models. The EASA AD applies to Model AS350BB helicopters, and this AD does not because that model is not type certificated in the United States. The EASA AD requires replacing the rotating star, unless already accomplished, by December 31, 2014, while we require replacing the rotating star within 160 hours time-in-service, unless already accomplished.

This AD also prohibits installing a rotating star with a ferrule, and the EASA AD does not.

### **Related Service Information Under 1 CFR part 51**

We reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. EC130 62A010 for Model EC130B4 and EC130T2 helicopters; ASB No. AS355 62.00.33 for Model AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters; and ASB No. AS350 62.00.34 for Model AS350B, AS350BA, AS350BB, AS350B1, AS350B2, AS350B3, AS350D, and military version AS350L1 helicopters; all Revision 0 and all dated April 28, 2014.

The ASBs report that a certain repair sheet instruction, which requires reconditioning the rotating swashplate by machining and adding a steel ferrule to accommodate a swashplate bearing, potentially affects the service life limit specified in the airworthiness limitations section. The ASBs provide procedures for inspecting the swashplate assembly's rotating star for a ferrule and if a ferrule exists, inspecting for a crack. The ASBs call for replacing the rotating star before further flight if a crack exists, and before December 31, 2014, if a ferrule is present and there are no cracks. If there is no ferrule, the ASBs require no additional action.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

### **Costs of Compliance**

We estimate that this AD affects 1,132 helicopters of U.S. Registry and that labor costs average \$85 a work hour. Based on these estimates, we expect the following costs:

- Visually inspecting the swashplate assembly requires 0.25 work-hour for a labor cost of about \$21 per inspection. No parts are needed for a total cost of about \$21 per inspection per helicopter, or about \$23,772 for the U.S. fleet.
- Dye-penetrant inspecting the rotating star requires 1 work-hour for a labor cost of about \$85 per helicopter. No parts are needed for a total cost of \$85 per inspection helicopter and \$96,220 for the U.S. fleet.
- Replacing the rotating star, ferrule, and associated parts requires 16 work hours, and parts cost \$8,354, for a total cost of \$9,714 per helicopter.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866;

(2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2015-17-11 **Airbus Helicopters:** Amendment 39-18244; Docket No. FAA-2015-0673;  
Directorate Identifier 2014-SW-034-AD.

**(a) Applicability**

This AD applies to Airbus Helicopters Model AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters with a swashplate assembly with rotating star, part number (P/N) 350A371003-04, 350A371003-05, 350A371003-06, 350A371003-07, or 350A371003-08, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in a rotating star in a main rotor blade (M/R) swashplate assembly. This condition could result in loss of the M/R pitch control and subsequent loss of helicopter control.

**(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Within 165 hours time-in-service (TIS), visually inspect the swashplate assembly to determine whether a ferrule is installed on the rotating star. If the ferrule is not visible, use a magnetic retriever positioned in Area (X) as shown in the pictures under paragraph 3.B.2.b., Accomplishment Instructions, of Airbus Helicopters Alert Service



Bulletin (ASB) No. EC130 62A010, ASB No. AS350 62.00.34, or ASB No. AS355 62.00.33, all Revision 0, and all dated April 28, 2014, whichever is applicable to your helicopter, to determine whether the ferrule is installed. The magnetic retriever will be magnetized if a ferrule is installed.

(2) If a ferrule is not installed, no further action is needed.

(3) If a ferrule is installed on the rotating star, before further flight, dye-penetrant inspect the rotating star for a crack in areas “Z” depicted in Figure 1 of Airbus Helicopters ASB No. EC130 62A010, ASB No. AS350 62.00.34, or ASB No. AS355 62.00.33, all Revision 0, and all dated April 28, 2014, as applicable to your model helicopter.

(i) If the rotating star has a crack, before further flight, remove from service the rotating star; ferrule; and the screws, washers and nuts used to attach the pitch change rods, compass, and the rotating star deflector.

(ii) If the rotating star does not have a crack, within 160 hours TIS, remove from service the rotating star; ferrule; and the screws, washers and nuts used to attach the pitch change rods, compass, and the rotating star deflector.

(4) Do not install a rotating star P/N 350A371003-04, 350A371003-05, 350A371003-06, 350A371003-07, or 350A371003-08 with a ferrule.

**(f) Special Flight Permits**

Special flight permits are prohibited.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety

Management Group, FAA, 10101 Hillwood Pkwy., Fort Worth, Texas 76177; telephone (817) 222-5110; email [asw-ftw-amoc@faa.gov](mailto:asw-ftw-amoc@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information**

The subject of this AD is addressed in the European Aviation Safety Agency (EASA) AD No. 2014-0132R1, dated June 2, 2014. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2015-0673.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6200, Main Rotor System.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Alert Service Bulletin (ASB) No. EC130 62A010, Revision 0, dated April 28, 2014.

(ii) Airbus Helicopters ASB No. AS350 62.00.34, Revision 0, dated April 28, 2014.

(iii) Airbus Helicopters ASB No. AS355 62.00.33, Revision 0, dated April 28, 2014.

(3) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, Inc., 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, Texas 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on August 13, 2015.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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